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ABSTRACT

This study investigates the coronary heart patient's "here and now" feelings and attitudes toward his illness prior to and following group treatment. This study also attempts to investigate the change in a patient's acceptance of his heart condition. To measure the change in general health level, a questionnaire was administered to eight patients who had experienced coronary heart attacks within the past 18 months. The questionnaire was administered prior to group therapy and on the last night of therapy eight weeks later. Supplementary information was obtained from a structured interview with each patient. Results suggest that group treatment is useful in assisting the coronary victim to understand and accept his illness, and that the coronary patient who has been through group treatment may make a more adequate psychological adjustment to living with a coronary condition. (Author/MJ)

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A GROUP THERAPY APPROACH TO THE TREATMENT OF CORONARY HEART PATIENTS

A 591 Paper

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The purpose of this study was to investigate the coronary heart patient's "here and now" feelings and attitudes toward his illness prior to group treatment, and following group treatment.

For the purpose of this study, the following hypothesis will be tested:

(1) There will be no significant difference between the pre and post - treatment General Health Questionnaire for the experimental group.
(2) There will be no significant difference between the pre and post - treatment General Health Questionnaire score for the control group.
(3) There will be no significant difference between the pre-treatment General Health Questionnaire score for the control and experimental group.
(4) There will be no significant difference between the post-treatment General Health Questionnaire score for the control and experimental group.

The study consisted of eight participants who had experienced a coronary heart attack within the past 18 months. A structured interview was conducted by the investigation and the General Health Questionnaire was administered pre and post-group treatment.

The two major conclusions from the study were:

(1) The Duncan's Multiple Range Test of Differences indicated that there was a significant difference in the General Health Questionnaire mean score between the pre-control and pre-experimental group to the .05 level.

(2) There was a significant difference in the General Health Questionnaire mean score between the pre-experimental and post-experimental group to the .05 level.

CHAPTER I

INTRODUCTION

In the past, tremendous emphasis has been placed on the etiological and physiological aspects of coronary heart disease while little emphasis has been placed on the psychological aspects. A coronary heart patient is an individual who has suffered from a major heart vessel being occluded causing a disruption in blood supply. More recently, however, the emphasis has changed to include psychological attributes which contribute to coronary heart disease with particular emphasis upon anxiety, stress, and depression.

Within the past five years, there have been a few studies which focus upon group therapy for coronary heart disease patients. Studies by Adsett and Bruhn (1968), Bilodeau and Hackett (1971), and Rahe et al. (1973) utilized the case study method to study the need for psychological intervention in the treatment of coronary heart disease patients. A program was established by Adsett and Bruhn (1968) to assist the patient who was having difficulty in adjusting to his coronary heart disease.

It was found that patients benefited from being able to openly express their feelings to group members who had shared the same illness. Another study focused on the nurse as a resource person who could implement a program for post coronary patients which would contribute to the patient having positive feelings toward himself and his illness

(Bilodeau and Hackett, 1971). Lastly, a study was conducted to demonstrate the usefulness of group therapy as an adjunct to medical management in the rehabilitation of the post myocardial infarct patient. The term medical management refers to the patient's diet, exercise, medication—that is, attention is most often given to the patient's physical needs but not to his psychological needs (Rahe, Tuffle, Suchor, Ransom, 1973).

There are many important areas which have not been investigated. In particular, the patient's "here and now" feelings and attitudes toward his illness in relationship to how he usually sees his level of functioning. There has been no specific scientific study which has examined the patient's "here and now" feelings and attitudes toward illness prior to group therapy treatment, in comparison to post group therapy treatment. No research has been reported to investigate the post coronary patient's self-acceptance or self worth.

The purpose of this present study was to investigate the coronary heart patient's "here and now" feelings and attitudes toward his illness prior to group treatment and following group treatment. Secondly, this study attempted to investigate the change in a patient's acceptance of his heart condition. To measure the change in general health level, the General Health Questionnaire (Goldberg, 1972) was administered prior to group therapy and on the last night of group therapy, which occurred eight weeks from the pre-testing situation. Supplementary information was obtained about the coronary heart patient's condition from a structured interview and from a question-

naire which tried to get a subjective response from the patients about themselves.

The results of this study should be of interest to medical health professionals who are re-educating the post coronary patient following his illness. If the study indicates that anxiety level can be reduced, and that the patient's self-worth can be improved through designated group therapy, then it seems reasonable to assume that this mode of treatment should be introduced juxtapositioned to traditional medical practice.

Summary

This chapter emphasizes the need for an investigation into psychological characteristics of, and intervention in, the treatment of coronary heart disease patients. A brief overview of relevant research was included and will be expanded upon in chapter two. The purpose of this study has been briefly outlined.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter summarizes the research in the areas of concern to this research project. It has been divided into two major areas, the first dealing with specific application of group processes to coronary heart patients, and the second involving literature relating to group process in general.

The Coronary Heart Patient

The literature reported upon in this section begins with current studies on coronary heart patients and the effectiveness of group therapy. Following this, studies on the psychological effects of a coronary heart condition are reported, followed by articles on the coronary patient's personality and his socio-economic status.

The first study concerning group psychotherapy for the coronary disease patient was by Adsett and Bruhn (1968). They selected 6 male post-coronary patients who were to participate bi-weekly for 10 weeks, with their wives meeting alternate weeks, for parallel group therapy. The experimental group was matched with a control group. The goals of therapy were: 1) to assist the coronary patient and his wife in learning how to cope with, understand and express their feelings openly about the illness; 2) to observe any concurrent physiological changes during the period of group therapy; and 3) to rate for changes in adaption and clinical outcome between the experimental and control

group.

The physiological changes were observed through blood pressure, pulse rate, serum cholesterol, serum uric acid and electrocardiogram monitoring. The psychological changes were measured by using the Minnesota Multiphasic Personality Inventory (MMPI).

According to Adsett and Bruhn (1968), "the ability of individuals to use interpersonal relationships for emotional support varied. It seemed that both the men and the women were able to share some of their feelings and find the group experience helpful and supportive (pp. 583)." It was also noted that the coronary patients could discuss emotionally charged material without precepitating angina attacks or electrocardiograph changes.

Another study was implemented by Bilodeau and Hackett (1971), to investigate the common issues raised by post coronary patients, and to note the effectiveness of group therapy with a nurse in charge of setting up a program. They recorded "that male patients recovering from myocardial infarctions had positive feelings toward the group experience." It was observed that patients could express their fears and anxieties before these fears became enormous and unmanageable. The nurse was capable of teaching, re-emphasizing information which was helpful to the coronary patients, and she assisted in demonstrating effective ways to deal with frustration and anxieties.

Rahe, Tuffle, Suchor and Arthur (1973) studied group therapy in conjunction with outpatient management of coronary heart patients. The group sessions were 90 minutes long and were held every other week.

Each patient who had a coronary heart attack was encouraged to attend at least 4 sessions, and a maximum of 6 sessions. Several observations were gained: (1) retrospective view of life changes prior to infarct, (2) hospitalization experience, (3) return home, (4) return to physical activity, and (5) return to work. The study concluded that short term group therapy was a valuable tool in the rehabilitation of the coronary patient. The therapy allowed for information concerning the disease, life adjustment and its management to be distributed which apparently was lacking from the patient-doctor relationship. As Weed points out

> any patient with a chronic illness must be his own physician; his lack of knowledge concerning his disease and of the necessities and details of therapeutic intervention cannot be compensated for by a stern, two minute reprimand delivered at three to six month intervals (Rahe, Tuffle, Suchor and Arthur, 1973, pp. 86-87).

It is of interest to note Anthony's (1970) article on the impact of physical and mental illness on family life. He describes an illness as being "traumatic, pressurizing and penalizing" to the family. He utilizes Toynobee's work and says that the disintegration and the relapse-remission cycle is unique for each family. The illness affects the total family as well as reaching out to extra familial relationships. Anthony says that "illness brings about a disequilibrium within the family and a change in the complementary of roles (p. 147)." This relates to the coronary patient's spouse for "they tend to deny their own need in order to take care of their husbands (Adsett and Bruhn, 1968, p. 582)."

Anthony concludes "that families can regenerate but it will depend on the severity and nature of the illness, of times the illness occurs and their socio-economic and cultural level (pp. 138-145)."

The article by Croog, Levine and Lurie (1968) reviews the direction of the recovery process for the coronary heart patient. Until 1968 empirical research has been focused on the etiology and physiology of coronary heart disease. Recently attention has been focused upon psychological and rehabilitative therapies.

Croog et al. (1968) discuss various independent variables which could affect the dependent variable; that is, the patient's level of recovery. The broad areas covered were physical status of the patient, pre-morbid personality, the physician, family life, work setting and service institutions and agencies. Secondly, the article discussed the problems of research design and methodology which confronts the researcher working in the area of rehabilitation.

Studies have been compiled by Hackett and Cassen (1970, 1971) to evaluate the effect of the coronary care unit on the coronary heart patient. In the study conducted in 1971, 1 person out of 19 admitted to being frightened by the cardiac monitor. Each of these persons had an average stay of 3.8 days and the mean age was 66. The investigators reported that the patients denied the presence of fear, apprehension or depression in relationship to the cardiac monitor and to their illness. "Denial is defined as the conscious or unconscious repudiation of all or a portion of the total available meaning of an illness in order to allay anxiety and to minimize emotional stress (p. 31)." In

the coronary care unit, the majority of personnel do, of course, bolster the patient's denial at every step along the way, so that it is bound to be more effective than in situations where it is challenged (1970, p. 42). In conclusion, then, this study suggests that most people tend to deny fear of death from serious illness and apparently swerved to a greater than a lesser degree.

Another article written by Cassen and Hackett (1971) reports that 145 out of 441 (32.7%) coronary patients were referred for a psychiatric consultation while in the coronary care unit. The main reasons for referral were: (1) anxiety, (2) depression, and (3) management of behavior. The management problems consisted of denial, inappropriate behavior and hostile conflicts. This article reported intervention in the following seven different ways in the coronary care unit—medication, conceptual clarification, environmental manipulation, bolstering optimism, and anticipation of reactions, confrontation and hypnosis. In summary:

> If one believes that psychological stress can endanger the already damaged heart, a position few would contest, then giving the heart patient methods for coping with fear, and for containing hopelessness may well reduce his chance of succumbing to illness either through death or prolonged disability (Cassen and Hackett, 1971, pp. 9-14).

The article written by Wishnie, Hackett and Cassen (1971) is a follow-up to the study they conducted in 1968 in a coronary care unit. In the original study 50 individuals were seen by one of the investigators; 24 of the original population were available for this study. Each of the 24 individuals was interviewed; the interview

averaged one hour and fifteen minutes and took place between 3 and 9 months following discharge. Each of the individuals were from the middle socio-economic class.

The interviews revealed that most patients in early convalescence suffered from anxiety, depression, insomnia, lack of exercise, intra-family conflict and minimized their emotional troubles to their doctor. On the basis of this information obtained through interviews, it appears that a program of mental and physical activity should be set up for the patient and his spouse following his discharge from the hospital. Before the problems associated with convalescence can be solved, attitudes need to change toward the "recuperative potential, employability and reliability of post-infarction patients (p. 1295)." With attitude changes, rehabilitative programs and a support physician, the coronary patient might not experience quite so stormy a recovery (pp. 1292-1296).

Reiser (1968) in a short review of cardiovascular disorders, emphasized the interrelationship of emotional factors and cardiac functioning. He stated that a number of clinical studies have demonstrated that the onset of the disease, complications and changes from benign to malignant phases can be associated with emotional turmoil which occurs in life crises. This finding was reinforced in the study completed by Rahe et al. (1973).

In the past, considerable interest has been demonstrated in establishing a "coronary personality" or attributing coronary heart disease to specific socio-economic factors. The following literature

will briefly recap the issues.

In a longitudinal study lasting fourteen years, 258 business and professional men were studied to determine whether there were particular personality characteristics which suggested a pre-disposition for coronary heart disease. The study instruments used were the Minnesota Multiphasic Personality Inventory (MMPI) and the Thurstone Temperament Schedule (TTS). Each of the 258 men were tested prior to illness. The individual who suffered a coronary heart attack, had significantly higher scores on the hypochondriasis scale on the MMPI and obtained high scores on the MF scale, rating more masculine than feminine. On the Thurstone Temperament Schedule, the coronary patient scores high on active drive. It is not to be concluded from this study that a classical typological personality could be formulated and utilized for stereotyping the coronary heart disease patient (Brozek, Keys and Blackburn, 1966).

Rosenman (1967) states that epidemiologic surveys have shown that emotional interplay based on these new stresses (industrialization) has a dominant pathogenetic role in accelerating coronary atherosclerosis, and the advent of clinical coronary heart disease is far more likely to develop in a person with a personality characterized primarily by aggressiveness, competitiveness and a sense of time urgency, than in persons with any other of the "classic culprits of the disease, such as smoking, decreased exercise and increased animal fats (p. 165)." He undertook an epidemiologic investigation of 3500 well men, 39 to 59 years old in 1960-1961. Detailed investigation of

the individuals socio-economic status, health status and living habits were recorded. Each man was seen annually for a two year period. After his initial examination, Rosenman divided them into type A and type B behavior patterns. Type A was characterized with the following traits: aggressiveness, ambition, drive, competitiveness and a profound sense of time urgency. He suggests the type B individual has the same characteristics but not to an excessive degree. At the end of the two year period, type A individuals had exhibited 3.4 times greater susceptibility to CHD. Both types A and B individuals exhibited equally the classic risk factors of smoking, decreased exercise, increased animal fat, increased blood pressure and increased serum cholesterol and lipo proteins; however, the type B individual remained less prone to coronary heart disease.

In concluding his article, Rosenman stated that:

> It is more difficult to accept concepts that attribute permanent changes in function and structure to emotions. . . . It is increasingly apparent that coronary heart disease results from the complex interplay of many factors and that the role of emotions must be recognized. The physician must surely extend his concepts of the causes and treatment of coronary heart disease beyond the realm of diet and lipid metabolism (p. 71).

Antonovsky (1968) reviewed in his article 35 studies of mortality and another 21 studies on morbidity. These studies explored the relationship between socio-economic status and cardiovascular diseases. He suggested from his comprehensive literature review that the incidence of coronary heart disease is equally distributed through-

out all social classes in Western countries. He concluded that the mortality rate may increase in lower socio-economic classes due to inadequate medical care, hence, an emergence of an inverse ratio will occur in the socio-economic class.

Hinkle, Whitney, Lehman et al. (1968) completed a five year survey of the relationship between occupation, education and coronary heart disease among the 270,000 men employed by the Bell Telephone system. With demographic data recorded on IBM cards and the medical information received from the survey, it was possible to compute rates of morbidity and mortality for various manifestations of coronary heart disease by occupational and social categories. The major finding of the study was that the men that were studied had the determinants of coronary heart disease when they were hired as young men and their subsequent experiences had not altered the existing situation. It was found that men at highest levels of management did not have a higher risk level than men at lower management levels. This collaborates Antonovsky's (1968) findings on social class. The study indicated that men with a college education had a lower attack and death rate than men who had not been to college. He suggested that these results are not related specifically to education but to biological differences, not as a result of socio-economic differences, but to the dietary and health habits that these men formed as young children and as adolescents.

Jenkins (1971) tabulated all the available research relating to the psychological and social precursors of coronary disease. He stated

six general categories of variables which emerged from the literature review; (1) social status indexes, (2) social mobility, (3) anxiety and neurosis, (4) life dissatisfaction, (5) coronary prone behavior patterns, and (6) psychological and social studies may have generated further evidence that myocardial infarct and angin pectoris may be a distinctive pathologic state.

Jenkins (1971) concluded his article by stating that the social and psychological factors affecting the coronary heart patient should be included in future epidemiologic studies. He stated that the reasons for ignoring these factors in the past are due to scientific conservation, difficulty in sorting out the independent variables, unfamiliarity with available measures of behavioral factors, and lack of behavioral science consultants with knowledge of epidemiology. Finally, he stated that the above difficulties are lessening and now the behavioral epidemiologist must relate various behavioral levels found with coronary disease into a meaningful whole.

In summary, then, the literature on the coronary heart patient suggests various physical and psychological factors which do relate to the incidence of coronary heart disease. It is only in the last few years that researchers have investigated behavioral components and how they relate to heart disease. Now, it is an area of increasing concern.

Group Process

Wolf (1968) defined group psychotherapy as

> a form of therapy which is practiced by clinicians in groups formed for the specific purpose of help-

> ing individuals with their psychological and emotional difficulties, the depth of each therapy depending largely on the individual technique of the therapist (p. 1234).

Wolf's (1968) article is an overview of group psychotherapy highlighting treatment techniques, therapeutic philosophy, and practical considerations in establishing group therapy. He suggested three broad categories in relationship to group process; (1) each therapist will set the climate for his group, (2) the first meeting is probably the only typical session, and (3) the therapist intervenes only when necessary—he does not direct the group. One of the major values of group psychotherapy ". . . is that patient's defenses and resistances are demonstrated over and over again in different situations and with different people (p. 1290)," ". . . the group provides a good setting for concrete and objective observation of the patient's progress from three points of view, the patient himself, his fellow group members and the group leader (p. 1241)." Ohlsen (1970) agrees with Wolf and described group therapy as,

> an accepting, trusting and safe relationship . . . within this relationship clients learn to focus, express and cope with their most disturbing feelings and thoughts; they also develop the courage and self-confidence to apply what they have learned in changing their behavior (p. 1).

Foulkes (1968) is in juxtaposition to Wolf and Ohlsen, when he states that the individual obtains,

> greater freedom, whether looked upon from the group or the individual's point of view, is the result of our successful operations, and the individual gains in independence and strength by his experience of

> an effective interaction between himself and the group . . . a two way process operating on many levels (p. 30).

Individuality, which is estimated as being so important, emerges in greater spontaneity as the result of group psychotherapy in both patient and therapist alike.

Yalom (1970) writes on group cohesiveness. He suggests that group cohesiveness is the analogue to the "relationship" in individual therapy and that it is a necessary function if therapy is to be successful. Yalom quotes Nickoff and Lakin's (1968) study, which states that "more than half of the former patients indicated that the primary mode of help in group therapy is through mutual support (p. 46)." Kopp in Yalom, indicated from his findings that self-perceived personality changes correlate significantly with both the member's feelings of involvement in the group and with his assessment of total group cohesiveness (p. 41).

Yalom (1970) suggests that the therapist learns early in his career that love is not enough to implement a behavioral change. He advocates that the dissonance between the individual's self-esteem and public esteem within the group is beneficial for the client in obtaining a real view of himself, providing the group has established a trusting and cohesive atmosphere.

The study by Lieberman et al. (1973) suggested that leaders who were moderate in stimulation, high in caring, moderate in interpretation, and moderate executive function, were most successful in obtaining positive group outcome. Other characteristics which they suggest

affect group change are; group cohesiveness and group harmony. Such factors as compatibility and content emphasis . . . here and now, versus historical data, appeared to have no effect on group change.

In summary, the articles presented reviewed the social and psychological aspect of coronary heart disease. It was noted throughout the articles that these aspects of heart disease have been neglected. This is reaffirmed by Jenkins (1971) and Croog, Levine and Lurie (1968). There were three pertinent articles specifically allocated to group psychotherapy and the coronary heart disease patient (Adsett & Bruhn, 1968; Bilodeau & Hackett, 1971, and Rahe, Tuffle et al., 1973). Other articles specifically investigated the coronary patient's defense mechanism in the coronary care unit and on discharge. Hackett & Cassen, 1970; Cassen & Hackett, 1971; Wishnie, Hackett and Cassen, 1971; Brozek, Keys,& Blackburn, 1966; and Rosenman, 1967 have investigated the cardiac prone personality while Hindle, Whitney, Lichmer et al. (1968) related occupation and education to coronary heart disease. Antonovsky (1968) viewed social class in relationship to coronary disease and concluded no real difference between classes.

A brief literature search was conducted into group process to become aware of the processes involved in group psychotherapy and to note whether this technique was advocated as being effective and therapeutic. Ohlsen (1970), Wolf (1968), and Foulkes (1968) individually stressed the importance of therapy in a group situation, providing there is a climate of trust and acceptance in the therapy session. Yalom (1970) emphasizes the importance of cohesiveness on the group

setting. He suggests that this is a necessary factor if therapy is going to be successful and beneficial to group members.

There is a need for empirical research into the social and psychological factors involved in coronary heart disease, especially in the rehabilitation phase of heart disease. The research reporting on coronary heart disease has emphasized etiological and biological factors; however, there has been scant information tabulated on group psychotherapy programs and their effectiveness in assisting the coronary patient in his rehabilitation. No research has been recorded on measuring the patient's anxiety level in the post coronary rehabilitation phase, nor has there been any specific research on the coronary patient and how he accepts himself and his disease in the rehabilitation phase.

The goals of group psychotherapy for the coronary heart disease patients are aimed at changing attitudes about themselves and their illness to aid them in understanding the physiological and psychological aspects of their disease; to help the spouse of the cardiac patient and himself to be more honest in their communication process, and to assist the cardiac patient in becoming more aware of his feelings and to encourage the individual to express these feelings.

CHAPTER III

THE PROBLEM

The present study was an investigation of the coronary patient's general health attitudes and feelings toward their illness. It seemed important to investigate their "here and now" feelings and attitudes toward their illness, in relationship to how they usually see their level of functioning. The instrument used to measure the patient's general health outlook in relationship to their coronary heart condition was the General Health Questionnaire, Goldberg (1972). Secondly, a structured interview and subjective questionnaire was administered to the patients to obtain supplementary information about their coronary condition and how they see themselves in relationship to their illness. The patient's description of his feelings and anxieties toward his general health was measured and analyzed through a comparative study of the treatment and control groups.

Hypothesis

For the purpose of this study, the following hypothesis will be tested.

(1) There will be no significant difference between the pre- and post-treatment General Health Questionnaire for the experimental group.

(2) There will be no significant difference between the pre- and post-treatment General Health Questionnaire score for the control

group.

(3) There will be no significant difference between the pre-treatment General Health Questionnaire score for the control and experimental group.

(4) There will be no significant difference between the post-treatment General Health Questionnaire score for the control and experimental group.

In addition to these hypotheses, subjective information was obtained prior to the treatment sessions through a self-administered questionnaire devised by the researcher. This subjective information was utilized in formulating the group therapy sessions for the coronary patients. The subjective questionnaire did not lend itself to a pre- and post-test analysis; however, during the feedback session the participants reported certain changes for themselves which will be reported in chapter four.

Method

This study consisted of 8 participants who were patients at the Saskatoon Community Clinic and who had experienced a coronary heart attack within the past 18 months. The treatment and control group were matched for age and sex. The participants for the control and treatment groups were selected through "throw of dice."

Following the selection of the participants, each person was contacted by phone to explain the reason for the study and also the reason for the visit of therapist A and therapist B to each participant. Each participant was interviewed by both therapists in their home. At

the initial interview the participants were informed of the goals of the study and a brief outline of the procedures in the study. A structured interview was conducted by the investigator, and the General Health Questionnaire was explained and instructions were given to return the questionnaire in one week, to the investigator.

The group therapy sessions were held on seven consecutive Monday nights from 8 p.m. to 10 p.m. at the Saskatoon Community Clinic. The participants who were in the treatment group were reimbursed for any incurring expenses caused by this research project.

The sessions were held in the conference room with the participants sitting in chairs in a circle. The lights were slightly dim. Refreshments were served during the sessions.

Each session had a specific topic to discuss; however, the discussion went in many varied directions with the core issue being the heart attack. The method of treatment utilized in each session was that of discussion—where each member shared his experiences and asked for input from the other participants and the therapists. On one occasion, week six, the format was varied to include a teaching approach of open communication followed by a structural exercise on listening.

No further attention, except the initial contact, was given to the control group until the therapy sessions were completed. On completion of the group psychotherapy sessions, the General Health Questionnaire was sent by mail to the control group asking that the questionnaire be returned to therapist A at the Saskatoon Community Clinic.

Subjects

The participants for this study are members of the Saskatoon Community Clinic. Each person had had an initial coronary heart attack within the past 18 months and was treated at City Hospital in the coronary intensive care unit by the doctors from the clinic and by the same group of internists from outside the clinic. Each group consisted of three males and one female. The mean age of the control group was 58.5 and the mean age of the treatment group was 57.7.

Group Therapists

Two therapists were involved in the seven week group treatment program. Both therapists were adequately trained. Therapist A is a medical doctor with a post graduate diploma in community health services and has been a group therapist for five years. Therapist B has a Bachelor of Science degree in nursing and is presently completing her Master's degree in Educational Psychology. In the past year, therapist B has been involved as a co-therapist in several growth groups.

Therapist A tended to be more confronting than therapist B. Therapist A adopted the role of tension-reliever, whereas, therapist B tended to be supportive and information-giving. Although these were the designated roles, each therapist tended to play a variety of roles throughout the seven week program.

Program

As mentioned, each participant was interviewed and given the General Health Questionnaire which was returned to the investigator

one week following the initial contact. The seven week program commenced on February eighteenth and continued for seven consecutive weeks.

The program dealt with the following topics; the physiological aspects of coronary heart disease, death and dying, sexuality, social aspects of their disease, co-joint session with spouses, communication skills with couples and a "so what" session.

Week I

This session focused on becoming familiar with each other and what happened to their heart muscle. To begin the session, therapist A suggested we begin by telling three facts and three feelings about ourselves. This relating of facts went twice around the circle with each person giving two facts about themselves. From that point, the participants immediately began to discuss their heart attack. Why me? Will it happen again? What actually happened to my heart? Did I cause my heart condition? The participants interacted reasonably well, freely discussing how their spouses nagged at them about doing too much work, not taking adequate rest and being more irritable since their heart attack.

Week II

The focus of this session was on death and dying. Each participant expressed concern for their family, especially their children in event of their death. They were unable to express their own feelings about their death or how close they had come to dying during their coronary attack. In discussing death, the participants said they had

been able to discuss their feelings to their spouse but admitted that their communication pattern was not as they would like with their spouse.

They discussed their feelings of isolation. They felt different from people who had not had a coronary attack. They seemed to feel that much of their old ways had to change.

They talked about anger and how they dealt with anger. They explored the possibility of expressing anger openly rather than suppressing it and how the open anger would be better for them healthwise and interpersonally-wise with their spouse.

Week III

This session focused on sex and how their sexuality had been affected by their illness. Questions such as; Will it hurt me? What about it if I get a pain during the sex act? How often?, etc., were some of the thoughts expressed by the participants. The usefulness of nitroglycerine prior to the sex act was discussed and some of the participants said they had discovered this on their own without any health worker telling them about the benefits. This session proved difficult for both therapists because only two of the participants were experiencing sexual satisfaction and two were not indulging in the sexual act. The two who were not experiencing any sexual satisfaction appeared somewhat reluctant to partake in this session.

Week IV

The focus was on social function. The participants' questions were as follows; What can I do now? How much do I have to change my

"life style"? Can I work again?

Again, the coronary patients exchanged information about their spouses and how their spouses attempted to over-protect them. They felt that they were the best guide as to how they felt and were most often able to gauge when they needed to rest. They also felt that they had to "slow down," which caused them to feel inadequate and not as useful as compared to their pre-attack days.

Two participants ventilated their angry feelings about their spouses and their inability to communicate to each other. They said that they communicate to each other as children rather than as adults. They felt that they were often misunderstood, which led to conflict in the home.

Week V

This was a conjoint session. The therapists met with the non-treatment spouses for 20 minutes to clarify any of their questions as to why we were conducting this study and why they had been asked to participate at this time. Following this, we joined with the treatment group.

This was a time when the non-treatment spouses were able to obtain information on their spouses heart condition. Two of the couples were able to confront each other on certain behaviors which had become focused since the coronary attack.

Discussion focused on the non-treatment spouse wanting to protect the treatment spouse and how they often felt frustrated when they felt that their spouse had overworked. Thoughts of death were briefly

expressed and probably were inadequately dealt with in the group.

Week VI

Therapist B felt that each participant (husband and wife) could benefit from some input on communication skills. The participants were given a choice in this decision. They decided to add one more session and to have week four structured to communication skills.

Therapist B discussed the Johari window and the importance of behavior description, feedback and listening. Following a brief instructional period, the spouses were divided into triads and given a structured exercise on listening. On completion of the exercise, the process and feelings surrounding the exercise were discussed. The consensus was favorable. Each expressed how hard it was to listen and thought it had been useful.

Week VII

The final session was a "so what" session. Each participant found real difficulty in giving constructive feedback so that the program could be improved. The one criticism was that more information on the physiology of the heart would have been beneficial. The good effects of group treatment was; (1) a decrease in nitroglycerine, (2) decreased irritability, (3) more accepting of illness, and (4) communication patterns improved.

Instrument Used

The General Health Questionnaire

The instrument for the present study was the General Health

Questionnaire, which was developed in England (GHQ) (see Appendix A).

The original form (1967) consisted of 140 items. Four main areas were chosen in which the search of items was to be conducted. These areas were; (1) depression, (2) anxiety, (3) objectively observable behavior, and (4) hypochondriasis. The Goldberg (1967) search for items were obtained from Abrahamson (1965) from the Cornell Medical Index (Fried and Lindemann, 1961), on "role satisfaction" (Talcott Parsons, 1959), Taylor's Manifest Anxiety Scale, Epenck's Maudsley Personality Inventory and the Minnesota Multiphasic Personality Inventory (Chapter III, Goldberg, 1970).

In selecting items for the questionnaire, the field was narrowed by the exclusion of personality traits and the fact that all items had to be applicable to the entire population. Through a selection process, 140 items were left. Then a random sample of subjects from general population was asked to sort the 140 cards into piles of those that seemed similar. The cards were eventually sorted into seven groups with approximately 20 each. The categorization was as follows:

(a) General health and central nervous system,

(b) Cardiovascular, neuromuscular and gastrointentinal,

(c) Sleep and wakefulness,

(d) Observable behavior—personal behavior,

(e) Observable behavior—relations with others,

(f) Subjective feelings—inadequacy, tension, temper, etc.,

(g) Subjective feelings—mainly depression and anxiety (p. 40).

To perform an item analysis, three calibration groups were

chosen. It was thought that a three-point calibration group would assist in discriminating between the "normals," "mildly ill," and "severely ill" psychiatric patients according to categories established by a group of psychiatrists. There were 100 respondents in each group. Patients who were schizophrenic, hypomanic or demented were not included in test instruction. As a result of this analysis, 93 items were transferred to computer cards and subjected to further analysis. All items chosen were found to discriminate significantly between the three groups.

The first five factors identified by statistical analysis were considered. The first factor accounted for 45.6 percent of the total variance; the second factor 3.3 percent, third factor 2.6 percent, fourth factor 2.1 percent, and the fifth factor 1.9 percent. The first factor was labelled a general factor which referred to the general way in which the patient perceived his present state of health to his usual state of health. Factor two was called depressive, but one end consisted of somatic, hypochondriacial items and the other end psychic depression. Factor three consisted of one end loading on agitation and the other apathy. Factor four was difficult to polarize but consisted of clusters around disturbed sleep and a cluster consisting of anxieties and fears. Lastly, factor five, ranged from irritability at one end to personal neglect at the other.

To reduce the length of the questionnaire, it was decided to retain the 20 items which loaded highest on the general factor and 36 other items that had high loadings on the other four factors. In

addition, three more items were included which were so worded that the mental answer "yes" indicated health. Item 60 was selected from the 24 rejected items because it was the item with the steepest gradient in the item analysis.

The resultant 60 item questionnaire can be found in Appendix A. The beginning questions are relatively neutral and gradually lead on to more explicitly psychiatric questions.

In summary, then, the 60 item questionnaire identifies "potential" psychiatric cases. From the validity studies, it is possible to identify clinical features of psychiatric illnesses. The largest group could be described as affective neurosis—that is to say, minor depressions and anxiety states.

Reliability

Goldberg and associates chose to assess the reliability of their instrument by designing a test-retest reliability study and a split half reliability study.

The test-retest reliability coefficients were obtained on three samples of outpatients with an interval of six months between the test-retest situation. One group of 20 patients seen by Goldberg yielded a reliability coefficient of .90. One sample of 75 patients, who in their opinion stayed the same, yielded a reliability coefficient of .75 and one sample of 51 patients who in their doctor's opinions stayed about the same, yielded a reliability coefficient of .51.

The split half reliability coefficient of .95 was obtained by analyzing the results of 853 questionnaires completed by the same

patients involved in the reliability and validity studies reported (Goldberg, 1972).

Validity

To establish a validity coefficient on the General Health Questionnaire, the score on the General Health Questionnaire was correlated with the overall clinical assessment. The product-moment correlation between General Health Questionnaire score and clinical assessment yielded a correlation of .80. In another study at an outpatient department, General Health Questionnaire scores were correlated with clinical assessment, yielding a correlation coefficient of .77.

Another validity study was carried out in Philadelphia. The patients were asked to complete two questionnaires: the 30-item (GHQ) and the 36-item symptom checklist (SCL). The item content of the SCL is broadly comparable to that of the General Health Questionnaire. The study included 250 respondents representing a wide social class. The author interviewed 50 of the respondents in accordance with the standardized psychiatric interview procedure. When scores in each questionnaire were plotted against the standardized clinical assessment, the product-moment correlation for GHQ equalled +0.77 (Goldberg, 1972).

In summary then, the questionnaire had been given to over 6,000 respondents in a wide variety of settings and in over 650 cases the questionnaire has been followed by a standardized psychiatric interview. As indicated, the reliability and validity appears to be consistently high and warrants being used in the present study.

The Usefulness of the GHQ

The General Health Questionnaire developed as a screening instrument to identify "potential" psychiatric cases within the community. The General Health Questionnaire items loaded on five factors which have been previously explained. The general health factor had the highest positive loading and accounted for 45.6 percent of the total variance. The general factor was conceptualized as the general way in which the patient perceived his present state of health from his usual state of health. This concept of the "here and now" feelings seemed useful and applicable in studying the coronary patient. The post-coronary patient suffers from anxieties about his life, he has feelings of vulnerability and helplessness, he feels depressed and lethargic because of the very nature of his illness (Croog et al., 1968). He has numerous physiological and psychological symptoms arising from his lethal illness. Cassen and Hackett (1971) reported that 145 patients from 441 patients were referred for psychiatric evaluation after being admitted to the coronary care unit. They reported that the most frequent reasons for referral were anxiety (47), depression (44) and behavioral anomalies related to the stress of an actual potential lethal illness. In a study conducted in Birmingham, England, the workers reported that anxiety and depression were the commonest non-cardiac focuses of persistent invalidism (Lancet, Sept. 1971). With this information on coronary patients, it seemed applicable to utilise the General Health Questionnaire which reports to measure the severity of disturbance in the present. The items question patients

about symptoms like abnormal feelings, thoughts and aspects of observable behavior to the "here and now" situation.

The items in factor one in the General Health Questionnaire are items which are applicable to the coronary patient. For example, dreading things you have to do, feeling life is a struggle, thinking of yourself as worthless, lacking energy, feeling everything on top of you (Goldberg, 1972). These same feelings and thoughts were documented in the Adsett (1968) and Bilodeau (1971) articles. The factors in the Goldberg study are difficult to measure by objective standards as distinct from clinical impressions. This difficulty appeared to be satisfied by utilizing the General Health Questionnaire which asks the individual about "here and now" feelings compared to his usual state of health.

CHAPTER IV

RESULTS

This chapter is concerned with reporting data obtained from the General Health Questionnaire, the subjective questionnaire and the structured interview situation.

The General Health Questionnaire was scored according to the Likert method which is a way of designing different scores for different degrees of intensity of response. The method to accomplish this is to assign scores of 0, 1, 2 and 3, to the four responses. A high score means potential psychiatric illness which would require further assessment.

Following the scoring procedure, Duncan's multiple Range Test of Differences between Group Means and an analysis of variance was performed on the experimental and control group General Health Questionnaire means. The Duncan's Multiple Range Test of Differences between Group Means will be reported in this chapter. The results of the analysis of variance is shown in Table I.

The subjective questionnaire will be reported in terms of the participants' responses and how their responses assisted in the development of the seven week group therapy program for post-coronary patients.

The results of the Duncan's Range Test of Differences between Group Means are reported in Table II. Significant differences were

Table I

Estimated Variances and F Ratios from the Raw Data for 2-way Analysis

Source	Sum of Squares	dF	MS	F
Factor A (Treatment)	1040.063	1	1040.063	.7759
Factor B (Pre - Post)	1501.563	1	1501.563	3.2793
Interaction (A x B)	3690.563	1	3690.563	8.0599

(These F values were not statistically significant at the .05 level of significance)

obtained between the pre-experimental and pre-control groups and the pre- and post-experimental group. These differences reached the .05 level of significance. Differences are reported in relationship to the Scored Mean of the Pre-experimental Group.

TABLE II

Group Means	Pre E. 92.5000	Post C. 57.0000	Pre C. 46.0000	Post E. 42.7500
Pre E. 92.5000				
Post C. 57.0000	35.5000			
Pre C. 46.0000	46.5000*	11.0000		
Post E. 42.7500	49.7500*	14.2500	3.2500	

(* = .05 level)

Hypothesis 1 stated that there would be no significant difference between the pre and post treatment General Health Questionnaire score for the experimental group. This hypothesis is rejected since the pre treatment General Health Questionnaire mean are significantly different at the .05 level of significance.

Hypothesis 2 stated that there would be no significant difference between the pre and post treatment General Health Questionnaire mean score for the control group. This hypothesis is not rejected. The mean General Health Questionnaire score indicates that this group is experiencing more physical and psychological symptoms now than they were at the pre test situation, as measured by the General Health Questionnaire.

Hypothesis 3 stated that there would be no significant difference between the pre-treatment General Health Questionnaire mean score for the control and experimental group. This hypothesis is rejected. The significant difference in the pre General Health Questionnaire mean scores for the two groups was significantly different at the .05 level of significance.

Hypothesis 4 stated that there would be no significant difference between the post treatment General Health Questionnaire mean score for the control and experimental group.

In summary then, significant results were reported to the .05 level between the pre and post experimental group and between the pre-control and experimental group. In the latter instance, the findings are not as predicted, even though randomization was used in setting up

the group. This will be further discussed in Chapter V.

The structured interview found in Appendix B, focused on the participant's hospitalization, particularly his medical treatment and how he saw himself in relationship to his illness. The information received from this instrument was useful in assisting the therapists in their development of the group therapy program. The data was primarily used in sessions 1 and 4. Session 1 focused on the physiological aspects of a coronary attack and the medical treatment associated with a coronary condition. Session 4 dealt with the social functioning of the patients. How much can I do? Will I return to work? Should I exercise? The data collected from the structured interview made the therapists aware that information needed to be dispersed to the coronary patient.

Questions 9 and 10 were related to death and dying. This topic was discussed in session 2. Questions 11 and 12 focused on their present feelings and what they expected from their illness. Sessions 5, 6 and 7 dealt with these concerns. Sessions 5, 6 and 7 were conjoint sessions which enabled the spouses to interact on a level which had previously been closed.

In summarizing the findings of this structred interview, the following information seemed pertinent: (1) the participants stated that hospital medical care was adequate, however, they felt that the medical staff did not adequately inform the patient about his condition nor his treatment; (2) each participant was concerned about his illness and how this would affect the family—each participant felt apprehen-

sive about his future, and (3) the control group said they did not concern themselves about death; whereas the experimental group expressed concern about death.

The multiple choice questionnaire is found in Appendix C. This questionnaire required each participant to write the appropriate response. Some of the questions were utilized to obtain general information about coronary patients which then was utilized to formulate each group therapy session. Questions 1, 2, 3, 4, 5, 6, 10, 13, 14, 15 and 16, rendered pertinent information which was dealt with in session 1. The participant responses indicated that they required information on the physiological and medical aspects of a coronary. They wanted information on exercise, diet and medication. This was primarily responded to in session 1, however this information was dispersed throughout the other 6 sessions. Questions 7, 8, 9, 11, 13 and 14 related to death and dying. This topic was discussed in session 2. Session 3 related to sexual function. Responses from questions 11, 13 and 14 assisted in the development of this session. Questions 9, 18, 19, 20, 21 and 22 related to social function which was stressed in session 4. Questions 5, 8, 9, 11, 12, 22, 23 and 24 related to sessions 5, 6 and 1, which were conjoint sessions. These questions were an attempt to obtain information on the spouses and their family relationship. It seemed imperative that the conjoint sessions deal with the feelings, expectations and stereotypes associated with a coronary victim.

At this time, it seems appropriate to report the subjective responses of the experimental group during the feedback session. Each

participant reported the following responses: (1) a reduction in the use of nitroglycerine, (2) each participant reported feeling less irritable and jumpy, (3) each person felt their communication system was more open and honest with their spouse, and (4) each person felt that they were now more able to accept their coronary condition.

SUMMARY

From the results obtained in the present study, the following conclusions seem appropriate:

1. The Duncan's Multiple Range Test of Differences indicated that there was a significant difference in the General Health Questionnaire mean score between the pre-control and pre-experimental group to the .05 level.

2. There was a significant difference in the General Health Questionnaire mean score between the pre-experimental and post-experimental group to the .05 level.

3. The results from the structured interview indicated that their concerns were focused on the physiological and medical treatment aspects of their coronary condition. The responses suggested that their social functioning was of concern to them.

4. The subjective questionnaire focused on the medical aspects of their condition, death and dying and their familial relationship since illness.

CHAPTER V

DISCUSSION

This chapter will more closely examine the results presented in Chapter IV. Further research into the functioning of group psychotherapy with coronary patients will also be suggested.

The present study investigated the coronary heart patients' general health attitudes and feelings toward their illness. The results on the Duncan's Range Test indicated that there had been a positive change between the pre-experimental and post-experimental group, as measured by General Health Questionnaire and feedback from participants. This suggests that group treatment was useful in assisting the coronary victim to understand and accept his illness. It also appears to suggest that the coronary patient who has been through group treatment may make a more adequate psychological adjustment to living with a coronary condition. The subjective comments which were reported by the experimental group in the last session appears to support the test findings. Another factor which may account for the participants' change was the fact that therapist A was a medical doctor. This was the first time that these participants had had an opportunity to meet informally with a doctor for that length of time. The participants were free to ask questions, to confront, and to share their feelings in a manner which usually does not occur within a doctor's office. The participants realized it was their time and that they had the doctor's

attention for two hours per session for seven weeks.

Hypothesis 3 was rejected. There was a significant difference to the .05 level between the pre-experimental and pre-control group. This result was unexpected. Another factor which may have caused the significant difference is that two of the participants appear to lie on the General Health Questionnaire. Therapist A had both of these participants for patients and on looking over the questionnaire, it was evident to therapist A that they had not been totally honest. The one participant was so anxious the day of the pre-test that he could not answer the questionnaire. The researcher circled the answers for him. There is no medical evidence to associate his shaking with a physical disease. The other participant who stated that he felt fine and that his general health was as good as usual had a coronary attack two weeks following the pre-test situation. Another participant in the control group appeared to have a great deal of difficulty in reading and understanding the General Health Questionnaire. This participant did appear to be somewhat dull. An example of her slowness was her inability to understand that she must use nitroglycerine when experiencing chest pain. She suffered with her pain or went to the emergency department at City Hospital. In conclusion, then, the above factors may or may not have influenced the difference in mean score on the General Health Questionnaire.

Hypothesis 4 was not rejected; the General Health Questionnaire score between the post-control and post-experimental groups was not significant to the .05 level. This result probably relates to the significant difference between the pre-control and pre-experimental

group mean General Health Questionnaire score. It seems probable that there would have been a significant difference at the post-test between the control and experimental group if the pre groups had been more similar.

The conjoint sessions appeared to contribute to the group therapy program. The spouses shared their feelings and concerns, particularly how they saw their spouse changing since the coronary attack. It appeared that the spouses felt safe to relate more honestly their feelings and happenings, than they could within their own home. The group therapy sessions allowed each person to realize that his thoughts and feelings were not peculiar. From comments made, the spouses received support by knowing and hearing that they were not alone in their struggle with a coronary patient.

SUGGESTIONS FOR FURTHER STUDY

From the results obtained in the present study, the following areas are suggested for further research.

1. Since this study sampled a small population, and which utilized patients who had had a coronary attack months ago, it would be of interest to apply a similar treatment to a larger sample and to coronary patients on discharge.

2. This research was based entirely on one instrument which measured general health. It would be of interest to use an instrument which dealt with specific personality factors and which included a lie scale.

3. It would be of interest to measure change in participants

if a doctor was not included as one of the therapists.

4. Another interesting aspect would be the measuring of two groups simultaneously for 7 weeks with one group composed of coronary patients and no spouses, and the other group composed of coronary patients and their spouses.

5. The sample for this study was too small. The study should be reproduced with a larger sample to see if there is any correlation between the two studies.

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APPENDIX A

GENERAL HEALTH QUESTIONNAIRE

Name:

Please read this carefully:

We should like to know if you have had any medical complaints, and how your health has been in general, *over the past few weeks*. Please answer ALL the questions on the following pages simply by underlining the answer which you think most nearly applies to you. Remember that we want to know about present and recent complaints, not those that you had in the past.

It is important that you try to answer ALL the questions.

Thank you very much for your co-operation.

HAVE YOU RECENTLY:–

1. –	been able to concentrate on whatever you're doing?	Better than usual	Same as usual	Less than usual	Much less than usual
2. –	lost much sleep over worry?	Not at all	No more than usual	Rather more than usual	Much more than usual
3. –	felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
4. –	felt capable of making decisions about things?	More so than usual	Same as usual	Less useful than usual	Much less useful
5. –	felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
6. –	felt that you couldn't overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
7. –	been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual
8. –	been able to face up to your problems?	More so than usual	Same as usual	Less able than usual	Much less able
9. –	been feeling unhappy and depressed?	Not at all	No more than usual	Rather more than usual	Much more than usual
10. –	been losing confidence in yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
11. –	been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
12. –	been feeling reasonably happy, all things considered?	More so than usual	About same as usual	Less so than usual	Much less than usual
13. –	been managing to keep yourself busy and occupied?	More so than usual	Same as usual	Rather less than usual	Much less than usual
14. –	been getting out of the house as much as usual?	More so than usual	Same as usual	Less than usual	Much less than usual
15. –	been feeling on the whole you were doing things well?	Better than usual	About the same	Less well than usual	Much less well

16. –	been satisfied with the way you've carried out your task?	Better than usual	About as usual	Less well than usual	Much less well
17. –	been taking things hard?	Not at all	No more than usual	Rather more than usual	Much more than usual
18. –	found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
19. –	been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
20. –	found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
21. –	been having restless, disturbed nights?	Not at all	No more than usual	Rather more than usual	Much more than usual
22. –	been managing as well as most people would in your shoes?	More so than usual	Same as usual	Rather less than usual	Much less than usual
23. –	been able to feel warmth and affection for those near to you?	Better than usual	About same as usual	Less well than usual	Much less well
24. –	been finding it easy to get on with other people?	Better than usual	About same as usual	Less well than usual	Much less well
25. –	spent much time chatting with people?	Not at all	No more than usual	Rather more than usual	Much more than usual
26. –	been finding life a struggle all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
27. –	been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
28. –	felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
29. –	been feeling hopeful about your own future?	More so than usual	About same as usual	Less so than usual	Much less hopeful
30. –	felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual

N.B. For fuller information regarding the GHQ you are recommended to read Maudsley Monograph No. 21, 1972, entitled 'The Detection of Psychiatric Illness by Questionnaire' by D.P. Goldberg, and published by O.U.P. at £3.50.

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HAVE YOU RECENTLY:-

9. - been late getting to work, or getting started on your housework?	Not at all	No later than usual	Rather later than usual	Much later than usual
0. - been satisfied with the way you've carried out your task?	More satisfied	About same as usual	Less satisfied than usual	Much less satisfied
1. - been able to feel warmth and affection for those near to you?	Better than usual	About same as usual	Less well than usual	Much less well
2. - been finding it easy to get on with other people?	Better than usual	About same as usual	Less well than usual	Much less well
3. - spent much time chatting with people?	More time than usual	About same as usual	Less than usual	Much less than usual
4. - kept feeling afraid to say anything to people in case you made a fool of yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
5. - felt that you are playing a useful part in things?	More so than usual	Same as usual	Less useful than usual	Much less useful
6. - felt capable of making decisions about things?	More so than usual	Same as usual	Less so than usual	Much less capable
7. - felt you're just not able to make a start on anything?	Not at all	No more than usual	Rather more than usual	Much more than usual
8. - felt yourself dreading everything that you have to do?	Not at all	No more than usual	Rather more than usual	Much more than usual
9. - felt constantly under strain?	Not at all	No more than usual	Rather more than usual	Much more than usual
0. - felt you couldn't overcome your difficulties?	Not at all	No more than usual	Rather more than usual	Much more than usual
1. - been finding life a struggle all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
2. - been able to enjoy your normal day-to-day activities?	More so than usual	Same as usual	Less so than usual	Much less than usual
3. - been taking things hard?	Not at all	No more than usual	Rather more than usual	Much more than usual
4. - been getting edgey and bad-tempered?	Not at all	No more than usual	Rather more than usual	Much more than usual
5. - been getting scared or panicky for no good reason?	Not at all	No more than usual	Rather more than usual	Much more than usual
6. - been able to face up to your problems?	More so than usual	Same as usual	Less able than usual	Much less able

PLEASE TURN OVER

47. - found everything getting on top of you?	Not at all	No more than usual	Rather more than usual	Much more than usual
48. - had the feeling that people were looking at you?	Not at all	No more than usual	Rather more than usual	Much more than usual
49. - been feeling unhappy and depressed?	Not at all	No more than usual	Rather more than usual	Much more than usual
50. - been losing confidence in yourself?	Not at all	No more than usual	Rather more than usual	Much more than usual
51. - been thinking of yourself as a worthless person?	Not at all	No more than usual	Rather more than usual	Much more than usual
52. - felt that life is entirely hopeless?	Not at all	No more than usual	Rather more than usual	Much more than usual
53. - been feeling hopeful about your own future?	More so than usual	About same as usual	Less so than usual	Much less hopeful
54. - been feeling reasonably happy, all things considered?	More so than usual	About same as usual	Less so than usual	Much less than usual
55. - been feeling nervous and strung-up all the time?	Not at all	No more than usual	Rather more than usual	Much more than usual
56. - felt that life isn't worth living?	Not at all	No more than usual	Rather more than usual	Much more than usual
57. - thought of the possibility that you might make away with yourself?	Definitely not	I don't think so	Has crossed my mind	Definitely have
58. - found at times you couldn't do anything because your nerves were too bad?	Not at all	No more than usual	Rather more than usual	Much more than usual
59. - found yourself wishing you were dead and away from it all?	Not at all	No more than usual	Rather more than usual	Much more than usual
60. - found that the idea of taking your own life kept coming into your mind?	Definitely not	I don't think so	Has crossed my mind	Definitely has

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APPENDIX B

NAME: RELIGION:

AGE: MARTIAL STATUS: M D S W

OCCUPATION:

1. Did you undergo any life style changes within a year prior to your heart attack, i.e., change of jobs, increased job responsibility, personal trauma etc.?

2. Did you ever consider the possibility that you might have a heart attack?

3. Did you feel dehumanized during your hospital stay?

4. Did the medical staff explain the importance of sedation or did you see the use of sedation as a crutch?

5. What do you remember as the most rewarding moment in your hospital stay?

6. What was the most frustrating moment in your hospital stay? Since your hospital stay?

7. What did you find to be a source of strength in your illness?

8. What was your major concern in learning about your illness?

9. How do you view your illness?

10. When you rest, do you have any dominate thoughts?

11. What has been the most difficult adjustment in your daily life?

12. How do you feel about yourself today?

APPENDIX C

(Please circle the answer which is most appropriate for you.)

NAME:

1. Do you blame yourself for your present heart condition?

   Yes Maybe No

2. Were you satisfied with the explanation you received from the nurses and the doctors about your heart attack?

   Unsatisfied Satisfied More than satisfied

3. Were you allowed a degree of choice in your personal care while in the hospital, i.e., when you wanted to bath, get up, etc.?

   No choice Choice A good deal of choice

4. How did you feel about taking sedation?

   Disliked it Fine Enjoyed it

5. To what extent do you think your illness has affected your family, your friends?

   Not affecting Affecting slightly Generally effecting

6. Do you see yourself as less personally secure and concerned about your future?

   Not at all concerned Somewhat concerned Very concerned

7. Have you become more concerned about dying and death?

   Yes Somewhat No

8. Are you able to express your feelings about death to your spouse?

   Yes Partially No

9. Are you able to openly discuss your health condition with your wife and family?

   Yes, very openly Partially Not at all

10. How do you see your wife and family treating you?

as though I'm helpless No change from before rather casually

11. Do you feel a burden to your spouse?

Great deal of burden Some burden as before Less burden than before

12. Has the amount of affection with your spouse and children changed?

No Same as before Yes

13. To what extent are you aware of your bodily sensations?

Not aware Same as before Very aware

14. Do you relate these body sensations to your heart condition?

Not really Some of them Yes, definitely

15. Have you been placed on a special diet?

Yes Partially No

16. Have you been instructed to lose weight?

Yes Some No

17. Is this a problem for you?

No problem at all Cause some hardship A real problem to me

18. How has your work been affected?

No change Learning to relax Affected somewhat

19. Did you return to some job?

Yes Part time No

20. Have you been forced to give up pleasurable activities because of your heart condition?

Yes Some No

21. How does this make you feel?

Badly | Believe it to be necessary | Happy to give up

22. Do you see your family and your friends expecting you to conform to the stereotype of a coronary patient?

Yes, definitely, | In some ways | Not at all

23. How do you see yourself accepting your coronary condition?

Accepting very well | reluctantly accepting | accepting rather badly

24. How do you see yourself now in comparison to how you were during hospitalization?

Much the same | Somewhat worse off | Greatly changed for the better.

Thank you for Participating